

## CLAIMS

What is claimed is:

1. A circuit for reducing east-west geometry mismatch between the top and bottom of a raster display, the circuit comprising:

    a first signal generator operable to generate a first signal having a parabolic portion;

    a second signal generator operable to generate a second signal having a parabolic portion; and

    a signal combiner operable to generate a third signal by combining the first signal and the second signal so that the parabolic portion of the first signal is continuous with the parabolic portion of the second signal.

2. The circuit of Claim 1 further comprising a horizontal deflection coil operable to receive the third signal.

3. The circuit of Claim 1 wherein the first signal generator comprises:

    a sawtooth generator operable to generate a sawtooth signal;

    one or more multipliers operable to generate one or more higher-order signals from the sawtooth signal; and

    a signal combiner operable to combine one or more of the higher-order signals to generate the first signal.

4. The circuit of Claim 1 wherein the second signal generator comprises:

a sawtooth generator operable to generate a sawtooth signal;  
one or more multipliers operable to generate one or more higher-order  
signals from the sawtooth signal; and  
  
a signal combiner operable to combine one or more of the higher-order  
signals to generate the second signal.

5. The circuit of Claim 1 wherein the second signal generator includes a  
level shifter.

6. The circuit of Claim 1 wherein the second signal generator includes an  
inverter.

7. The circuit of Claim 1 wherein the second signal generator includes a  
gain controller.

8. The circuit of Claim 1 wherein the circuit is implemented on a single  
integrated circuit device.

9. A method for reducing east-west geometry mismatch between the top  
and bottom of a raster display, the method comprising generating a third signal by  
combining a first signal having a parabolic portion with a second signal having a  
parabolic portion so that the parabolic portion of the first signal is continuous with the  
parabolic portion of the second signal.

10. The method of Claim 9 further comprising providing the third signal to a  
horizontal deflection coil.

11. The method of Claim 9 further comprising generating the first signal.
12. The method of Claim 11 wherein generating the first signal comprises:
  - generating a sawtooth signal;
  - generating one or more higher-order signals from the sawtooth signal;
  - and
  - using one or more of the higher-order signals to generate the first signal.
13. The method of Claim 9 further comprising generating the second signal.
14. The method of Claim 13 wherein generating the second signal comprises:
  - generating a sawtooth signal;
  - generating one or more higher-order signals from the sawtooth signal;
  - and
  - using one or more of the higher-order signals to generate the second signal.
13. The method of Claim 9 further comprising shifting the level of the second signal.
14. The method of Claim 9 further comprising inverting the second signal.

15. The method of Claim 9 further comprising increasing or decreasing the amplitude of the second signal.

16. The method of Claim 9 wherein the method is performed on a single integrated circuit.

17. A circuit for reducing east-west geometry mismatch between the top and bottom of a raster display, the circuit comprising:

a first signal generator operable to generate a first horizontal correction signal component having a parabolic portion;

a second signal generator operable to generate a second horizontal correction signal component having a parabolic portion;

a signal combiner operable to generate a horizontal correction signal by combining the first horizontal correction signal component and the second horizontal correction signal component such that the horizontal correction signal is a continuous signal; and

an amplifier operable to amplify the horizontal correction signal, wherein the horizontal correction signal will not be distorted when amplified by the amplifier since the horizontal correction signal is a continuous signal.

18. The circuit of Claim 17 further comprising a modulator operable to modulate an amplitude of a horizontal sawtooth signal using the horizontal correction signal.

19. The circuit of Claim 17 further comprising:

a modulator operable to modulate an amplitude of a horizontal sawtooth signal using the horizontal correction signal to generate an amplitude modulated horizontal sawtooth signal; and

a horizontal deflection coil coupled to the receive the amplitude modulated horizontal sawtooth signal.

20. The circuit of Claim 17 wherein the circuit is implemented on a single integrated circuit.

21. A method for reducing east-west geometry mismatch between the top and bottom of a raster display, the method comprising generating a horizontal correction signal, wherein the horizontal correction signal is a continuous signal that will not be distorted when amplified.

22. The method of Claim 21 further comprising modulating an amplitude of a horizontal sawtooth signal using the horizontal correction signal.

23. The method of Claim 21 further comprising:

generating a modulated horizontal sawtooth signal by modulating an amplitude of a horizontal sawtooth signal with the horizontal correction signal; and

providing the modulated horizontal sawtooth signal to horizontal deflection coil.

24. The method of Claim 21 wherein the method is performed on a single integrated circuit.